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THE INSECT PEST SURVEY
BULLETIN

A periodical review of entomological conditions throughout the United States
issued on the first of each month from March to December, inclusive.

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OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR SEPTEMBER, 1930

Grasshoppers still continue to attract considerable attention throughout the greater part of the country. In many places the damage has even increased over that done in August.

Several species of cutworms are reported from the Rocky Mountain and the West Coast States.

The fall armyworm became generally prevalent over the Middle Atlantic States during the month, attracting unusual attention by attacking lawns in towns and cities.

Damage by white grubs is becoming very evident, as the season advances, in the Central States from Indiana westward to Nebraska, and southward to Missouri.

In this number of the Survey Bulletin is a summary of the survey work on the Hessian fly for the Middle Atlantic, East Central, and West Central States. The Hessian fly situation as a whole is not alarming. From conditions in southern and west-central Illinois and parts of Missouri and Indiana, however, there is reason to believe that unless checked by adverse weather conditions this insect will be decidedly more troublesome next year in this region than it has been in several years.

The cotton leaf worm made one of its very extensive northward flights about the middle of September. The moths were observed in large numbers in southern Missouri on September 14, in southern Illinois on September 15, in the District of Columbia on September 23, in southern Michigan and New York City on September 24, and in Boston, Mass., on September 25.

Codling moth eggs continued hatching during the first two weeks in September in Illinois, Indiana, and Kentucky, and moths were still emerging in central Ohio during the third week of the month.

In the Lake Region of Ohio a late brood of the oriental fruit moth

seriously damaged late varieties of peaches harvested after the middle of September. To the southward, in Indiana, Illinois, and Kentucky, infestation seemed to be much less serious, particularly in apple, and only moderate abundance is reported over the New England and South Atlantic regions.

A green stink bug, Chlorochroa sayi Stal, is recorded from the State of Nebraska for the first time. It was found injuring potatoes in Kimball County.

The imported cabbage worm is very seriously infesting cabbages in Illinois, Iowa, and Minnesota, and rather serious infestations by the cabbage webworm are reported from North Carolina, Alabama, and Mississippi. The cabbage looper is appearing in very considerable numbers over the same region and also northward into Virginia.

The beet leafhopper is abundant in northern Utah and considerable damage is resulting from the infestation.

The fall webworm is occurring very abundantly throughout the eastern States from Vermont southward to Florida and Alabama.

The birch leaf skeletonizer is occurring in a heavy outbreak in northern Maine and the upper and lower peninsulas of Michigan.

The elm leaf beetle is so prevalent in Connecticut that unsprayed trees are brown in many parts of the State, and it is more prevalent at Raleigh, N. C., than it has been during the past fifteen years.

In the drought-affected States mosquitoes are unusually prevalent, perhaps because small streams, having been dried to puddles, afford excellent breeding places.

OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA FOR AUGUST AND SEPTEMBER, 1930

A correction: The outstanding entomological features in Canada, in the August 1 number of the Insect Pest Survey Bulletin, referred to July, 1930 instead of August, 1930, as published on page 259.

Reports during the past two months indicate a definite upward trend in grasshopper populations extending from southern Quebec, through Ontario and the Prairie Provinces, to British Columbia. With the exception of the Chilcotin ranges, British Columbia, however, grasshoppers, in general, were nowhere sufficiently numerous to cause serious crop damage.

The pale western cutworm continued in severe outbreak form in Saskatchewan, but the outbreaks of the bertha armyworm which developed in 1929, in Manitoba and Alberta, completely subsided, and there was no

recurrence of damage this season. In British Columbia, cutworms, generally speaking, were scarcer and less injurious than for many years past.

A rather heavy infestation of the wheat stem sawfly occurred in southwestern Manitoba and locally in eastern Alberta, and serious damage by this species was anticipated in sections of Saskatchewan.

White grubs have been on the increase for several years in sections of southern Quebec, and a heavy flight of the beetles is forecast in 1931. Severe damage to field and garden crops was reported from southeastern Ontario. In British Columbia this pest was about normal.

The diamond-back moth was prevalent in Saskatchewan and Alberta and was extraordinarily abundant and destructive in sections of British Columbia.

The European corn borer infestation in the Maritime Provinces continues very local and light.

Hornworms were more abundant on tomato and tobacco in southwestern Ontario than they have been during the past few years. The ^{cucumber} striped beetle was unusually destructive in New Brunswick.

A species of grain aphid caused much damage to late sown oats in sections of eastern Saskatchewan and locally in western Manitoba. Aphids of many species were unusually abundant in British Columbia this season, but the woolly apple aphid was notably scarce. Reports indicate that in most parts of the Dominion fruit aphids were of comparatively minor importance in 1930. The apple aphid, however, was noted in outbreak numbers in sections of New Brunswick.

The codling moth was reported as unusually injurious in Ontario and the Maritime Provinces. An increase also was noted from southern Vancouver Island. Elsewhere in British Columbia the codling moth was notably scarce.

Fruit injury by the oriental peach moth in southern Ontario is light.

Red spider mites were conspicuously injurious to small fruits in southwestern Ontario and southern Manitoba. Grape and apple leafhoppers increased in abundance in southern Ontario.

A fruit blight, possibly carried by thrips, caused material damage to raspberries and loganberries in coastal sections of British Columbia.

During the past summer in British Columbia, a marked decrease was noted in the abundance of several species of injurious fruit insects including the oyster-shell scale, lesser apple worm, pear slug, peach twig borer, currant fruit fly, and the imported currant worm.

The European beech bark louse has caused the death of many trees on the mainland of Nova Scotia.

The black headed budworm continued to effect material damage on Cape Breton Island, Nova Scotia, and also was reported in outbreak form on the British Columbia coast.

Widespread and heavy infestations of the birch leaf skeletonizer occurred in the Maritime Provinces and southern Quebec.

The fall webworm is present in conspicuous abundance throughout eastern Canada, but has shown a decided decrease in the Lower Fraser Valley, British Columbia.

The maple leaf-cutter occurred in greatly reduced numbers, compared with previous years, in Ontario and southern Quebec.

The hemlock looper outbreak which developed on the watersheds of the Trinity and Pentecote Rivers on the north shore of the St. Lawrence, Quebec, in 1928-29, subsided entirely in 1930.

A survey of the satin moth in the Maritime Provinces revealed several small infestations of the insect in Westmoreland and Albert Counties, New Brunswick, in addition to the one previously reported at Moncton. In Nova Scotia, outbreaks were located at various points between Annapolis and Yarmouth. In British Columbia, this species has continued to spread on Vancouver Island and in the Lower Fraser Valley.

In general, bark beetles have shown a decided increase over large areas in British Columbia, and have been unusually destructive this summer.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

- South Carolina F. Sherman (September 19): Several species of grasshoppers, especially Melanoplus femur-rubrum DeG., are very abundant in Saluda County.
- Ohio E. W. Mendenhall (September 11): The grasshopper menace, in Butler County, is pronounced in spite of the drought.
- Illinois J. H. Bigger (September 15): Grasshoppers are very abundant, severely damaging soybeans and corn.
- Michigan R. E. Pettit (September): Grasshoppers are very abundant in the north-central part of the State.
- Minnesota A. G. Ruggles and assistants (September): Grasshoppers, though quite generally prevalent throughout the State, are reported as appearing in serious numbers in Blue Earth, Carlton, Mower, Swift, Washington, and Wilkin Counties only.
- North Dakota J. A. Munro (September 19): Grasshoppers are moderately abundant at Pingree, Stutsman County. Two reports received (August 18 and 30, respectively). Both reports stated that serious injury was being done to alfalfa.
- South Dakota H. C. Severin (September 18): Melanoplus differentialis Thos., M. bivittatus Say, M. femur-rubrum DeG., and M. mexicanus mexicanus Sauss. are very abundant on small grain, flax, corn, garden truck, hedge plants, and trees. Most abundant in northern Tripp, Gregory, Charles Mix, Lyman, Brule, Aurora, and Douglas Counties.
- Iowa H. E. Jaques (September 25): Grasshoppers are moderately to very abundant throughout the State. Especially destructive to young alfalfa, clover, gardens, etc. Several species are involved, M. differentialis Thos. and M. femur-rubrum DeG., predominating.
- Missouri L. Haseman (September 24): Grasshoppers, M. differentialis Thos. and M. femur-rubrum DeG., are very abundant.
- Nebraska M. H. Swenk (August 15-September 1): Grasshoppers continued to be injurious in certain parts of Nebraska. The Boyd County infestation continued to be severe during August. New centers of injury developed in Furnas County and in southern Gage County.
- Colorado C. P. Gillette (September 19): Grasshoppers are very abundant in northeastern Colorado.

- Utah G. F. Knowlton (September 21): Grasshoppers are moderately to very abundant. They seem to be becoming less abundant than they were last month.
- Nevada G. G. Schweis (September 22): Grasshoppers are very abundant in western Nevada. Considerable damage has been done to the second crop of alfalfa.
- Arizona C. D. Lebert (September 25): Grasshoppers are troublesome only in the northern part of the State at the present time. They were eating truck near Prescott, rather voraciously about the 15th of September.
- Oregon D. C. Mote (August): Grasshoppers are very abundant on field crops in Lane County.

CUTWORMS (Noctuidae)

- North Dakota J. A. Munro (September 19): Cutworm injury to flax fields extended through the first week in July at Neche, Pembina County, according to a report received from a farmer of that vicinity. He states that many fields of flax, which had been resown during June on account of previous cutworm injury, had been seriously injured a second time. He estimated that cutworms had caused 50 per cent injury to flax fields in his part of the country. The cutworms were identified as Euxoa ochrogaster Guen.
- Iowa H. E. Jaques (September 25): Ten counties report marked fall activity of cutworms.
- Colorado C. P. Gillette (September 19): Lycophotia margaritosa saucia Hbn. is very abundant and injurious to celery in the Denver area. It is also doing considerable injury to potato vines in parts of the San Luis Valley.
- Nevada
and
California G. G. Schweis (August 19): Species of *Prodenia* have been reported from a wide area, including many counties in Nevada and eastern California, where they have been reported as doing damage to alfalfa, potatoes, grapes, and other crops.
- California C. K. Fisher (August 27): The yellow-striped armyworm (*Prodenia praeficia* Grote) has been doing considerable damage to baby lima and blackeye beans in the vicinity of Modesto. Worms first started in alfalfa.

FALL ARMYWORM (*Laphygma frugiperda* S. & A.)

- Delaware L. A. Stearns (September 15): The fall armyworm was seriously abundant in certain localities about Felton and Camden, August 20.

Maryland

E. N. Cory (September 22): Laphygma frugiperda is present in injurious numbers on lawns in Baltimore, on bent grass in Baltimore County, on barley and wheat for forage in Harford County, on rye in Montgomery County, and on alfalfa and barley in Kent County.

District
of
Columbia

U. S. D. A. Press Service (By Dr. W. H. Larrimer) (September 20): The long, dry summer has prevented the growth of succulent grass in pasture lands and as a result hundreds of lawns are now being overrun with these caterpillars, not only in the District of Columbia but throughout nearby States. What is perhaps more serious economically, this caterpillar is destroying fall-sown wheat and other small grains which have been planted for early fall pasture, because the long dry season prevented the usual growth of grass in the pasture lands.

Virginia

G. E. Gould (September 24): The fall armyworm has been exceedingly abundant this year. The present brood of larvae commenced to do noticeable damage early in September and since then reports of damage to many crops have come in from all parts of eastern Virginia. On the Eastern Shore damage was observed to Sudan grass and sorghum. Around Norfolk the larvae have caused damage to rape, kale, broccoli, collards, turnip salad, savoy cabbage, rutabagas, grass, and garden peas. In the northern part of Virginia a field was observed where this insect had destroyed 30 acres of German clover and had done some damage in 50 acres more.

W. J. Schoene (September 17): Reports of serious injury in several counties in eastern and central Virginia have been received. It seems that the insect is generally distributed.

F. N. Darling (September 15): There is an infestation of the armyworm in Northampton County, where much damage is being done.

Evening Star, Washington, D. C. (September 26): The fall armyworm, after campaigning in nearly every other section of the State, has crossed Chesapeake Bay and attacked the crops on the Eastern Shore. G. T. French, State Entomologist, said yesterday the worm has appeared in large numbers in both Accomac and Northampton Counties, and County Agent W. E. Strong of Accomac has written the State Department of Agriculture that "the armyworm is destroying hundreds of acres of our fall hay crops such as rye, wheat, and crimson clover."

North Carolina

C. H. Brannon (September 20): This species is continuing widespread damage over the State.

Georgia

H. S. Adair (September 25): Larvae were numerous in Albany and other localities in southern Georgia during July

and were observed feeding on grasses and various field crops. Moths emerged the latter part of August from material placed in the insectary and were observed quite numerous in the field during the latter part of August and the first of September.

- Florida J. R. Watson (September 24): The fall armyworm did considerable damage about Raiford in September.
- Alabama J. M. Robinson (September 19): The fall armyworm started its injurious work, but a fungus destroyed a large percentage of the larvae.
- Mississippi R. W. Harned and assistants (September): The southern grass worm has continued to attract considerable attention on corn, cotton, soybeans, and grasses of various kinds during September.
- Clay Lyle (September 8): Many fields of hay in Oktibbeha and surrounding counties have been ruined by the southern grass worm during the past week. This seems to be the worst outbreak of the worms since 1912. Where fields of young corn are located near meadows that are being cut, the worms are likely to move into the corn and destroy it quickly.

WIREWORMS (Elateridae)

- Pennsylvania C. A. Thomas (September 22): Potatoes in several fields in Bucks County were badly injured by larvae of Pheletes agonus Say, during September. At least 20 per cent of the tubers were bored into by these wireworms and the growers estimated that they reduced the value of such potatoes by at least 50 per cent.
- West Virginia L. M. Peairs (September 20): Wireworms are injuring potatoes in Wood County.
- Iowa H. E. Jaques (September 25): Wireworms are moderately abundant in several counties in northeastern Iowa.
- Nevada G. G. Schweis (September 22): Wireworms are moderately abundant. Doing considerable damage to potatoes.

WHITE GRUBS (Phyllophaga spp.)

- Indiana J. J. Davis (September 22): Numerous reports of abundance and destructiveness of white grubs have been received from northern Indiana and along the west side, north of about the center. The reports indicate a continued southward spread of this destructive brood of grubs. The majority of inquiries referred to injury to corn, although some referred to serious damage to timothy, blue grass, the turf of golf courses, and strawberries and general crops. The drought conditions intensified injury in some cases.

Illinois

W. P. Flint (September 15): White-grub injury is becoming more apparent with the advance of the season. Damage is showing at the present time in many areas where little injury was noted up to the middle of August. This damage is confined to the northern half of the State.

Iowa

H. E. Jaques (September 25): Most of the counties in the eastern half of the State show moderate to heavy damage to corn, potatoes, and pastures. The insects are only moderately abundant in the northwestern white-grub area.

Missouri

L. Haseman (September 24): White grubs are moderately abundant. Emergence of adult beetles continued later than usual this summer.

Nebraska

M. H. Swenk (August 15-September 1): During the latter part of August the number of complaints of injury by white grubs increased greatly. These all related to the part of the State lying north of the Platte River and east of Holt and Buffalo Counties. The injury was to hay meadows, lawns cornfields following grass, and strawberry beds.

CEREAL AND FORAGE - CROP INSECTS

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Pennsylvania

C. C. Hill (August 18): The result of the summer survey for the Hessian fly indicates the following percentages of infestation in the several counties of this State, as follows:

<u>County</u>	<u>Infestation</u> <u>(Per cent)</u>	<u>County</u>	<u>Infestation</u> <u>(Per cent)</u>
Adams	1	Lancaster	1
Bedford	1	Lebanon	1
Berks	2	Lehigh	1
Bucks	5	Lycoming	2
Butler	6	Mercer	10
Center	2	Mifflin	1
Chester	2	Montgomery	8
Clinton	0	Montour	1
Columbia	0	Northampton	1
Cumberland	1	Northumberland	4
Dauphin	0	Perry	0
Franklin	1	Snyder	1
Fulton	2	Union	3
Huntingdon	0	Washington	1
Indiana	6	York	0
Juniata	2		
State average.....			2 per cent

Maryland	<u>County</u>	<u>Infestation</u>	<u>County</u>	<u>Infestation</u>
		(Per cent)		(Per cent)
	Baltimore	1	Frederick	0
	Carroll	1	Montgomery	0
	Cecil	1	Queen Anne	2
	Dorchester	1	Washington	0
	State average.....			1 per cent

Delaware	<u>County</u>	<u>Infestation</u>
		<u>(Per cent)</u>
	Kent	4
	New Castle	0
	State average.....	2 per cent

West Virginia	<u>County</u>	<u>Infestation</u> <u>(Per cent)</u>
	Berkeley	1
	Jefferson	0
	State average.....	1 per cent

Virginia	<u>County</u>	<u>Infestation</u>	<u>County</u>	<u>Infestation</u>
		(Per cent)		(Per cent)
	Augusta	1	Pulaski	2
	Fauquier	1	Roanoke	3
	Frederick	1	Rockbridge	4
	Hanover	6	Rockingham	2
	Loudoun	1	Shenandoah	1
	Pittsylvania	6	Smyth	0
	State average.....			2 per cent

North Carolina	<u>County</u>	<u>Infestation</u> <u>(Per cent)</u>
	Guilford	1
	Mecklenburg	2
	Wake	2
	State average.....	2 per cent

Ohio T. H. Parks (September 27): Early sown and volunteer wheat in central and northern Ohio was remarkably free from Hessian-fly eggs during late September. We have not yet visited the heaviest infested area in our State (Butler County) to determine the presence of eggs on the wheat there. It is apparent that the hot, dry weather gave the fly a serious setback.

Illinois

W. P. Flint (August): The annual survey which was carried on by the Natural History Survey and the Bureau of Entomology has been completed. This year the survey covered 57 counties and the infestation is about the same as last year with slight increase of the fly in parts of the State. Dry weather has reduced volunteer wheat and considerably retarded fly development.

<u>County</u>	<u>Average per cent</u> <u>wheat tillers in-</u> <u>festated by the</u> <u>Hessian fly</u>	<u>County</u>	<u>Average per cent</u> <u>wheat tillers in-</u> <u>festated by the</u> <u>Hessian fly</u>
Adams	23.6	Lee	3.5
Brown	25.0	Livingston	.3
Bureau	12.7	Macon	15.3
Cass	10.3	Macoupin	35.0
Champaign	4.1	Madison	24.0
Christian	18.6	Mason	6.0
Clark	16.0	McDonough	11.6
Clinton	24.0	McLean	2.6
Coles	7.0	Menard	7.6
Crawford	44.0	Montgomery	38.0
DeKalb	3.5	Morgan	5.0
DeWitt	.5	Moultrie	5.5
Douglas	9.0	Ogle	5.0
Edgar	6.0	Perry	15.0
Edwards	21.0	Piatt	9.4
Fulton	12.3	Rock Island	6.0
Gallatin	10.0	Saline	8.0
Greene	22.3	Sangamon	13.6
Grundy	1.0	Schuyler	25.3
Hancock	11.6	Scott	14.3
Hamilton	10.0	Shelby	2.5
Henry	4.2	St. Clair	20.0
Iroquois	1.0	Tazewell	5.0
Jackson	5.0	Vermillion	2.0
Jersey	38.0	Warren	8.0
Kankakee	2.0	White	10.0
Knox	4.6	Whiteside	8.6
LaSalle	6.4	Will	1.3
Lawrence	35.0		

State average..... 12.2 per cent

East-central
States

C. M. Packard (July 26): In general, the Hessian fly infestation in the East Central States was too light to affect yields. There does not seem to be much danger of serious infestation this fall in the northern part of this region. The somewhat greater abundance of the fly in the southern part of Ohio, Indiana, and Illinois, and in Kentucky and Tennessee, indicates heavier infestations.

<u>Area</u>	<u>Number of localities</u>	<u>Number of samples</u>	<u>Average per cent of culms and tillers infested</u>
Northern Ohio	4	24	10
Southern Ohio	3	36	18
Northern Indiana	40	71	7
Southern Indiana	19	47	17
Southern Illinois	6	19	47*
Northern Kentucky	2	14	15
Southern Kentucky	1	6	52*
Southern Michigan	11	15	4
Northern Tennessee	2	14	3
Southern Tennessee	4	17	23*

*These averages show the infestations present in seeding-date plots sown in situations particularly favorable to heavy infestation.

West-central States

J. R. Horton (September): In Missouri the average infestations ran below 25 per cent of the stems infested. Only in occasional fields were infestations high enough to affect the yield. In Kansas infestations were quite generally low, averaging but 10 per cent of the stems in the eastern portion and 14 per cent in the western portion of the State. Yields were not measurably affected by the fly except in Hiawatha in the extreme northeast portion and Colby in the extreme northwest portion of the State. On the other hand Nebraska infestations were in general exceptionally high, averaging 41 per cent of the stems infested. For all practical purposes the fly is absent from Oklahoma except in the northeastern portion of the State. The following table gives a summary of the season's survey work:

<u>Region</u>	<u>Number of localities</u>	<u>Number of samples</u>	<u>Average per cent of culms infested</u>
Southern Missouri	10	24	21
Central Missouri	28	49	19
Northwestern Missouri	12	14	14
Southeastern Nebraska	4	20	41
Western Kansas	9	32	14
Eastern Kansas	2	38	10
Northern Oklahoma	5	47	4

Kentucky

W. A. Price (September 24): The Hessian fly is reported in the bluegrass section. Stubble shows 10 and 12 per cent infestation.

Iowa

H. E. Jaques (September 25): Ten counties in southwestern Iowa report Hessian flies moderately abundant with a few scattered reports from other parts of the State.

Missouri

L. Haseman (September 24): The Hessian fly is moderately abundant; infestations are irregular but situation alarming with early wheat seeded for pasture.

Nebraska

M. H. Swenk (September 18): The Hessian fly is moderately abundant in southeastern Nebraska.

WHEAT JOINT WORM (Harmolita tritici Fitch)

Illinois

W. P. Flint (August): The annual wheat joint worm survey has been completed. The survey covered 57 counties and gave the following results:

<u>County</u>	<u>Average per cent</u> <u>wheat tillers in-</u> <u>festes by jointworm</u>	<u>County</u>	<u>Average per cent</u> <u>wheat tillers in-</u> <u>festes by jointworm</u>
Adams	2.0	Lee	.5
Brown	2.0	Livingston	0
Bureau	20.8	Macon	.6
Cass	.3	Macoupin	.3
Champaign	0	Madison	0
Christian	.3	Mason	0
Clark	.8	McDonough	33.3
Clinton	0	McLean	0
Coles	0	Menard	0
Crawford	.6	Montgomery	.6
DeKalb	0	Morgan	.3
DeWitt	0	Moultrie	0
Douglas	0	Ogle	0
Edgar	0	Perry	1.3
Edwards	4.0	Piatt	.6
Fulton	9.0	Rock Island	8.0
Gallatin	.6	Saline	0
Greene	.6	Sangamon	0
Grundy	0	Schuyler	3.0
Hancock	8.3	Scott	.3
Hamilton	2.0	Shelby	0
Henry	14.5	St. Clair	0
Iroquois	0	Tazewell	1.6
Jackson	1.3	Vermilion	0
Jersey	0	Warren	17.0
Kankakee	0	White	2.0
Knox	14.6	Whiteside	9.5
LaSalle	3.4	Will	0
Lawrence	.4		

WHEAT STRAW WORM (Harmolita grandis Riley)

Utah G. F. Knowlton (August 28): The wheat straw worm is very abundant in some wheat fields in northern Utah. Species of Harmolita are also present in barley, oats, and rye, but in much less abundance. (September 21): The wheat worm is quite prevalent in most parts of northern Utah.

CORN

CHINCH BUG (Blissus leucopterus Say)

Indiana J. J. Davis (September 22): The chinch bug is moderately abundant in the extreme northeastern corner of the State.

Illinois W. P. Flint (September 15): Chinch bugs are reported from several counties in the south and west-central parts of the State. The increase in abundance of chinch bugs this year has been extremely rapid. They have probably increased in abundance more rapidly this year than at any time during the last twenty-five years. Unless checked by adverse weather conditions we would expect commercial injury in several counties next season.

Iowa and Missouri H. E. Jaques (September 25): Chinch bugs were moderately abundant in Lee County, Iowa, but otherwise practically absent in the State. I found them very abundant in Henry County, Missouri, early in September.

Missouri L. Haseman (September 24): The chinch bug is moderately to very abundant; very abundant on some farms in central belt across State.

CORN EAR WORM (Heliothis obsoleta Fab.)

Vermont H. L. Bailey (September 23): The corn ear worm is moderately abundant at Montpelier; plentiful in a small cornfield in the city.

Rhode Island A. E. Stene (September 18): The corn ear worm is very abundant.

New Jersey T. J. Headlee (September 9): The corn ear worm is moderately abundant.

Maryland E. N. Cory (September 22): The corn ear worm is very abundant.

West Virginia L. M. Peairs (September 20): The corn ear worm is very abundant in Monongalia County, their work especially noticeable in view of the short crop.

- North Carolina W. A. Thomas (September 11): The larvae are now extremely abundant on late tomatoes and beans at Chadbourn. Some plants were observed today where every tomato fruit had been injured, many of the young fruit buds destroyed, and some stems eaten off. The foliage was also injured by the larvae feeding on leaf and petiole.
- South Carolina P. K. Harrison (September 4): Late corn is quite heavily infested.
- Florida J. R. Watson (September 24): The corn ear worm is feeding extensively on the seeds of beggarweed, and mining the ground cherry, Physalis spp.
- Ohio E. W. Mendenhall (September 23): The corn ear worm is very bad on sweet corn, in most parts of the State. The ravages of this pest are quite marked, destroying a large percentage of the kernels of corn and making the ears unmarketable.
- Illinois W. P. Flint (September 15): This insect increased very rapidly during the last few days of August and the early part of September. Counts made in sweet corn fields on the east side of the State showed from 44 to 57 per cent of the ears infested. Eggs are very common on Indian mallow.
- J. H. Bigger (September 15): The corn ear worm is moderately abundant. Thirty-one per cent infestation in west-central Illinois but moderate damage done.
- Michigan R. H. Pettit (September): The corn ear worm is scarce in general.
- Minnesota A. G. Ruggles and assistants (September): The corn ear worm is generally scarce throughout the State.
- Kentucky W. A. Price (September 24): The corn ear worm was present in 80 out of 100 ears of corn at Springfield.
- Iowa H. E. Jaques (September 25): The corn ear worm is moderately abundant in the western half of the State. Winneshiek, Benton, Mahaska, and Jefferson Counties also report moderate abundance. It is very abundant in Henry County, Missouri, in field corn.
- Missouri L. Haseman (September 24): The corn ear worm is very abundant, in southern Missouri attacking soybean pods.
- Arkansas D. Isely (September 24): Corn ear worms are very abundant. The crops attacked are corn, soybeans, and cotton.
- Mississippi R. W. Harned (September 22): Only two complaints have been received during the past month.

STALK BORER (Papaipema nebris nitela Guen.)

Indiana J. J. Davis (September 22): The stalk borer has continued to be commonly referred to in correspondence. The first pupa was received September 2 and all received since that date (the last, September 17) were pupae. All reports were of infestation in corn, excepting one received from Otterbein which was in golden glow.

Michigan R. H. Pettit (September): The stalk borer is very abundant in general.

Iowa H. E. Jaques (September 25): The stalk borer is moderately abundant in Crawford, Harrison, and Madison Counties.

Nebraska M. H. Swenk (August 15-September 1): A few reports of cornstalks bored by the common stalk borer received during the last half of August. After August 20 most of the specimens sent were pupae rather than caterpillars. Other reports received add Thurston, Colfax, and Merrick Counties to the list given in my previous report.

SOD WEBWORMS (Crambidae)

Missouri L. Haseman (September 24): There has been an epidemic of close-wing moths, consisting mostly of some three species, during the last two weeks of September through central Missouri. They are attracted in swarms to light on warm nights.

LESSER CORN STALK BORER (Elasmopalpus lignosellus Zell.)

Florida J. R. Watson (September 24): The lesser corn stalk borer has been destroying chufas on the State Farm at Raiford.

Mississippi R. W. Harned (September 22): This insect has attracted considerable attention during the past month in various districts of the State. Specimens collected from cowpea, bean, and lima bean plants have been received from Holmes, Marshall, Tippah, Forrest, and Pike Counties.

A CERAMBYCID (Prionus fissicornis Hald.)

Nebraska M. H. Swenk (August 15-September 1): A cornfield injured by the larvae of Prionus fissicornis was reported August 25 from Sherman County.

CORN ROOT WORM (Diabrotica longicornis Say)

West Virginia L. M. Peairs (September 20): Adults are numerous feeding mostly on silks.

Indiana J. J. Davis (September 22): Adults of the northern corn root worm were reported damaging corn at Richmond August 23, but we have no specific information regarding the exact nature of the injury.

Illinois J. H. Bigger (September 15): The northern corn root worm is scarce. It is appearing in smaller numbers than it has in at least five years.

COLORADO CORN ROOT WORM (Diabrotica virgifera Lec.)

Colorado C. P. Gillette (September 19): The Colorado root worm is moderately abundant in northern Colorado and very abundant in some cases where corn followed corn.

SOYBEANS

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis Hbn.)

Louisiana W. E. Hinds (August 29): This insect is now quite abundant in the district around New Iberia and Jeanerette and ragging of foliage has occurred in some fields. The outbreak is generally some two weeks later than that of 1929 and will be less severe. Moths and larvae occur in some numbers as far north as Baton Rouge, and probably farther than this. The soybean crop is being harvested for hay, or turned under, very generally regardless of worm occurrence, and in the southern section about 80 per cent of the crop is already safe from worm injury. I do not anticipate serious damage to the crop except in late-planted beans.

Oklahoma C. F. Stiles (September 22): This insect and the corn ear worm (Heliothis obsoleta Fab.) have destroyed the soybean seed crop in most districts of Oklahoma. It first attacks the small beans and later the leaves.

ALFALFA AND CLOVER

PEA APHID (Illinoia pisi Kalt.)

Wisconsin J. E. Dudley, Jr. (September 24): Owing largely to parasites, predators, and possibly drought, the pea aphid practically disappeared from fields late in August. Largest array of natural enemies ever observed, Nabis ferus L. being the most prevalent species. During the past 10 days infestation has developed until now from 20 to 50 are secured in 50 sweeps of a net. Accompanying the rise of the aphids, there is a falling off of the number of natural enemies taken.

(Hemiptera)

Arizona

E. A. McGregor (September 1): Examinations of alfalfa fields near Aztec, where the crop is being grown for seed, developed the fact that the seed yield is being materially reduced through the activities of bugs, of which the following were the more common: Lygus elisus Van D., Ceresa occidentalis Funkh., Chlorochroa sayi Stal., and Geocoris punctipes Say.

A THRIPS (Microthrips piercei Morg.)

Arizona

E. A. McGregor (September 1): A thrips (probably Microthrips piercei) was exceedingly abundant in the alfalfa flowers at Aztec.

CRICKETS (Gryllus assimilis Fab.)

Mississippi

R. W. Harned (September 22): Crickets were received from a correspondent at Greenville, on September 18. He reported that these insects appeared there in great numbers on the night of September 16. One farmer reported that they were eating alfalfa and another that these crickets were almost as abundant as the alfalfa seed that he was sowing.

F R U I T I N S E C T S

COTTON LEAF WORM (Alabama argillacea Hbn.)

Massachusetts

J. V. Schaffner, jr. (September 26): A heavy flight of this species arrived in Lowell last evening (September 25) according to a report accompanied by specimens received today.

New York

G. N. Wolcott (September 25): This is to report the appearance of large numbers of moths of the cotton caterpillar, on the warm and rainy night of September 24 at Barnveld.

District
of
Columbia

G. Myers (September 24): The cotton leaf worm was observed in great numbers on the buildings and lamp posts in Washington on the morning of September 24.

Ohio

T. H. Parks (September 27): These moths have appeared in the Lake Erie peach section and have been puncturing the skin of ripening peaches. The injury is not so serious as during some years.

Illinois

S. C. Chandler (September 15): The cotton leaf worm is found very scarce in the cottonfields of Pulaski and Alexander Counties.

W. P. Flint (September 18): There is report of a heavy flight of the cotton leaf caterpillar in southern Illinois on the night of September 15.

Michigan

R. H. Pettit (September 25): On the 24th of September a specimen of the Alabama moth was sent in from Kalamazoo. This is evidently the first record for Michigan in 1930.

Missouri

L. Haseman (September 24): During August and September cotton fields in the cotton-growing counties of southeastern Missouri were seriously damaged by the cotton leaf worm. On September 14 moths were taken in considerable numbers for the first time this year at Columbia in codling-moth bait pans.

CODLING MOTH (Carpocapsa pomonella L.)

Massachusetts

A. I. Bourne (September 23): The codling moth is moderately to very abundant. There are a considerable number of late-season stings. The second brood this year was larger than normal.

North Carolina

C. H. Brannon (September 3): Damage to apples in the mountains is exceptionally light this season.

Ohio

T. H. Parks (September 27): This insect is much more serious than usual in our State. Lawrence County has suffered most and in this county a third brood of codling moth larvae developed this year and damaged the fruit since August 20. Moths are still emerging and a spray program carrying three cover sprays following the calyx application did not prove effective in controlling the insect. Elsewhere in the State the insect is under control but has increased rapidly.

Indiana

J. J. Davis (September 22): The codling moth problem is a serious one in southern Indiana.

F. H. Lathrop (September 15): In laboratory studies including large numbers of codling moths, the emergence of moths declined sharply during the first week in September, showing that the larvae are going into winter quarters. This is confirmed by field observations. Nevertheless, considerable numbers of newly hatched larvae are still entering the fruit in the orchards about Vincennes at this date.

Illinois

W. P. Flint (September 15): Eggs have been hatching during the first two weeks of September. Many apple orchards are showing an unusual amount of damage from very late worms.

S. C. Chandler (September 15): There has been a general heavy hatch of codling-moth worms in the orchards of southern Illinois beginning about the 1st of September. Entrances were especially noticeable by September 7.

W. P. Flint (September 18): On September 2, Mr. Sazama examined a number of bands that had been on apple trees for ten days in one orchard at Parkersburg. A count revealed 700 larvae and only one pupa, indicating that the worms are going into hibernation. Newly hatched larvae were entering the fruit in numbers.

Kentucky

W. A. Price (September 24): Observations of the codling moth at Henderson indicate a decline in emergence of adults since September 1. Numbers of new entrances were observed on apples September 17, indicating that moths are still plentiful in some orchards.

Missouri

R. M. Jones (September 17): Well sprayed orchards are relatively free of worms in southwestern Missouri. Other orchards show moderate to serious infestations, depending upon thoroughness and timeliness of sprays.

L. Haseman (September 24): Late worms are very abundant. In northern Missouri we have had three broods this year with the third-brood worms very abundant.

Kansas

P. M. Gilmer (September 19): There has been rather severe late injury from codling moth in the southern section of the State during the first half of September. Part of this is without question due to a small fourth brood.

Arkansas

D. Isely (September 24): The codling moth is very abundant in northwestern Arkansas.

Alabama

O. I. Snapp (September 18): The infestation is heavy at Fort Payne.

Nevada

G. G. Schweis (September 22): The codling moth is reported on unsprayed fruit, 90 per cent wormy.

Washington

E. J. Newcomer (September 22): Owing to cooler weather in June and September, the codling moth infestation is not so severe this season as it was last year.

Oregon

D. C. Mote (July): The first generation of codling moths is about over at Corvallis. Pupae of the second generation appearing ^{the} (August): The codling moth is moderately abundant in the Willamette Valley. Peak of second brood just passed.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

Connecticut

W. E. Britton (September 24): The eastern tent caterpillar is scarce.

Delaware

L. A. Stearns (September 15): In New Castle County the tent caterpillar was very abundant, during late August and

early September, on practically all shrubs which they commonly infest.

Oregon

B. G. Thompson (July): The tent caterpillar adults are very abundant in the Willamette Valley.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

Ohio

T. H. Parks (September 27): The apple maggot was not so serious as last year in northern Ohio where it was an economic pest in 1928 and 1929. Emergence of flies in considerable numbers occurred between July 20 and August 9 as determined by R. W. Dean, who is investigating this insect. Two special sprays were advised during this period. In the test orchards the apple maggot seems to be well under control at this writing, owing apparently both to the spraying and to the adverse weather of the season. In a few unsprayed orchards the insect is still serious. No complaints have reached us from localities other than northern Ohio.

JAPANESE BEETLE (Popillia japonica Newm.)

Rhode Island

U. S. D. A. Press Service (September 18): During the present summer, surveys have resulted not only in confirming the continuation of the infestation at Providence but in the discovery of additional beetles at Newport and Westerly.

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Ohio

T. H. Parks (September 27): Following the serious drought of midsummer, shot-hole borers are more numerous than usual in peach, cherry, and even apple trees. In Lorain County, the beetles were emerging during August from a brush pile containing prunings of the orchard and were damaging the near-by young apple trees.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

Minnesota

A. G. Ruggles and assistants (September): The oyster-shell scale is quite generally abundant over the southern half of the State.

Michigan

R. H. Pettit (September): The oyster-shell scale is moderately abundant in general.

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Ohio

T. H. Parks (September 27): The European red mite is not a very serious pest in northern Ohio this year. Well sprayed orchards are remarkably free from this mite.

PEACH

PEACH BORER (Aegeria exitiosa Say)

A correction: "(July 12)" should be inserted after "recorded today" in the second line of the note by O. I. Snapp on the peach borer in the Insect Pest Survey Bulletin, Vol. 10, No. 6, page 279.

Georgia

C. H. Alden (September 20): The peach borer is moderately abundant. Moths are out and are ovipositing.

O. I. Snapp (September 20): Oviposition in the fields and insectary is heavy. One female has deposited over 900 eggs.

Indiana

J. J. Davis (September 22): The peach-tree borer was reported from Walkertown and Ligonier during the month.

Illinois

S. C. Chandler (September 15): Infestation has evidently not been decreased to any extent by the extremes of heat of the past summer. A recent survey in southern Illinois peach sections showed from 50 to 90 per cent of the trees not treated in the past two years to be wormy. By September 3, 84 per cent of the old worms had emerged, 13 per cent were in the pupal stage, and only 3 per cent were still in the larval stage. We are recommending treatment by September 20 in this section, this year, which is a little earlier than usual.

Michigan

R. H. Pettit (September): The peach borer is very abundant in general.

Missouri

L. Haseman (September 24): The peach borer is moderately abundant. In central Missouri borers are quite abundant.

Mississippi

R. W. Harned and assistants (September): This insect is quite generally reported throughout the State and is very abundant at Meridian and Agricola.

ORIENTAL FRUIT MOTH (Laspeyresia molesta Busck)

Virginia

G. E. Gould (September 24): The oriental fruit moth is moderately abundant.

Ohio

T. H. Parks (September 27): While the infestation in the Elberta peaches was very light, there has developed a late brood which seriously damaged late varieties harvested after the middle of September. This statement applies to counties joining Lake Erie, as the crop in all other counties was killed by severe winter temperature.

- Indiana F. H. Lathrop (September 15): Since August 15, the numbers of oriental fruit moths in peach orchards of Wm. Vincennes have steadily declined. Since September 1 it has been difficult to find infested twigs. Infestation does not seem to be a serious factor in apple orchards of this section this season.
- Kentucky W. A. Price (September 24): Infestation in apples does not seem to be severe in the orchards observed in western Kentucky. However, a quince tree observed at Henderson bearing about 1 bushel of fruit was heavily infested.
- Connecticut P. Garmen (September 24): The oriental fruit moth is reported in Hartford, New Haven, and New London Counties. Quinces in general, although wormy, show improvement over last year.
- Rhode Island A. E. Stene (September 18): The oriental fruit moth is moderately abundant.
- Maryland E. N. Cory (August 16): The oriental fruit moth is moderately abundant.
- West Virginia L. M. Peairs (September 20): The oriental fruit moth is moderately abundant in the eastern panhandle; distinctly less numerous than in 1929.
- South Carolina A. Lutken (September 19): The oriental fruit moth is moderately abundant in the northwestern part of the State.
- Georgia O. I. Snapp (September 17): Quince fruit in a dwelling is now heavily infested. This insect causes little damage at Fort Valley in orchards where no fruit is available after the harvest of Alberta peaches.
- O. E. Alden (September 20): The oriental fruit moth is scarce.
- Illinois S. C. Chandler (September 15): In the peach sections from Centralia south there have been no new entrances into peach twigs for a month and scarcely any for two months. Apples in interplanted orchards or close to peach have shown either very light or no infestation. Parasitism was not over 20 per cent. It is thought that the extreme heat of summer has aided in the reduction which has evidently occurred. To date no live larvae can be found cocooned on peach trees.
- Michigan R. H. Pettit (September): The oriental fruit moth is moderately abundant in the southeastern part of the State; not spreading so rapidly as expected.

- Alabama J. M. Robinson (September 19): The oriental fruit moth is moderately abundant at Auburn.
- Mississippi R. W. Harned and assistants (September): The oriental fruit moth was reported from Calhoun City, Houston, Yazoo City, Corinth, Kosciusko, Meridian, and at points in De Soto, Tate, Quitman, Panola, Yalobusha, Grenada, and Montgomery Counties.
- R. W. Harned (September 22): Specimens tentatively identified as larvae of the oriental fruit moth were collected in peaches at Gulfport on September 2 and in pears at Merrill on the same date.
- PLUM CURCULIO (Conotrachelus nenuphar Hbst.)
- Georgia O. I. Snapp (September 11): Only three adults were captured during jarring on three one-half days in a number of peach orchards at Fort Valley. This insect has either left peach orchards for hibernation or the population is very light. We are expecting the adult carry-over to be less than usual. (September 26): Frequent jarrings in a number of peach orchards since September 9 have netted a total of only 9 adults. Evidently they left peach orchards in this locality unusually early for places of hibernation.
- Michigan R. H. Pettit (September): The plum curculio is very abundant in general.
- Minnesota A. G. Ruggles and assistants (September): The plum curculio seems to be quite generally scarce over the State, only one County (Lyon) reporting it as very abundant.
- Missouri L. Haseman (September 24): Picked apples show their usual abundance of stings by the plum curculio.
- Mississippi R. W. Harned and assistants (September): The plum curculio is generally reported as scarce throughout the State.

PEAR

PEAR LEAF BLISTER MITE(Eriophyes pyri Pgst.)

- Utah G. F. Knowlton (September 21): The pear leaf blister mite has been causing some damage at Roosevelt. The infestation on some trees is very heavy.

CHERRY

CHERRY FRUIT FLY (Rhagoletis cingulata Loew.)

Oregon

S. C. Jones (July): The cherry fruit fly reached the peak of emergence at Eugene about June 28 and at Eola and Hillcrest in the Amity section about July 14. The last flies were found in the Eugene section on July 9 and in the Amity section on July 20. Maggots appeared in cherries at Eugene on July 1. Mature maggots were found at Macleay (Marion County) about July 18. A few of the maggots had dropped to the ground at that time.

D. C. Mote (August): Adults were still being found in the field in numbers August 20, as reported by S. C. Jones.

PLUM

PLUM GOUGER (Anthonomus scutellaris Lec.)

North Dakota

J. A. Munro (September 19): Specimens of plums showing injury by the plum gouger were received from Haynes, Adams County, on September 10. The sender stated that this is the first year plums have been injured in this way in his locality.

RED SPIDER (Tetranychus telarius L.)

Oregon

O. T. McWhorter (July): The red spider is very abundant on prunes and cherries in the Milton-Freewater district, and moderately abundant on prunes in the Forest Grove and Salem district.

A MITE (Eriophyes sp.)

Oregon

O. T. McWhorter (July): The rust mite (not yet determined) is very abundant on prunes in the Milton-Freewater district.

BLACKBERRY

A MITE (Eriophyes gracilis Nalepa)

Oregon

D. C. Mote (August): Serious infestation on both Himalaya and Oregon Evergreen blackberries occurs in western Oregon apparently caused by the blackberry mite, Eriophyes gracilis Nalepa. Reported by J. Wilcox.

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

- Maryland W. S. Abbott (September 15): The grape leafhopper is very abundant on grape foliage at the insecticide testing laboratory.
- West Virginia L. M. Peairs (September 20): The grape leafhopper is extremely numerous. Along with the drought it has nearly defoliated the grapevines.
- Ohio T. H. Parks (September 27): E. comes Say and E. tricincta Fitch are present in the usual numbers and some vineyards suffered a rather heavy infestation; others are almost free from attack.

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

- Ohio T. H. Parks (September 27): Berry-moth injury is present in the grape belt of northern Ohio, but it is not so serious as it was one year ago. Encouraging results were secured by growers who sprayed against the first brood during June.

PECAN

AN APHID (Myzocallis fumipennellus Fitch)

- Georgia H. S. Adair (September 25): The black pecan aphid began to appear in some pecan orchards in this locality (Albany) in injurious numbers the latter part of August. Although the infestation is not so extensive as last year it has done considerable damage by causing the defoliation of pecan trees.
- Alabama J. M. Robinson (September 19): The black pecan aphid is abundant on pecan foliage at Tuscaloosa, Camp Hill, and Auburn.
- Mississippi R. W. Harned and assistants (September): The black aphid is showing up in numbers on pecan at Lucedale and is scarce at Ocean Springs.

HICKORY SHUCK WORM (Laspeyresia caryana Fitch)

- Mississippi R. W. Harned and assistants (September): The pecan shuckworm is scarce at Ocean Springs and moderately abundant in east Jackson County.

CIGAR CASE BEARER (Coleophora fletcherella Fern.)

- Mississippi R. W. Harned and assistants (September): The cigar case bearer is scarce at Ocean Springs and very abundant in the vicinity of Pascagoula.

PECAN CASE BEARER (Acrobasis juglandis LeB.)

Mississippi

R. W. Harned and assistants (September): The pecan leaf case bearer is moderately abundant at Ocean Springs. Infestation is approximately normal in those pecan orchards that were examined in Stone County.

RED-SHOULDERED SHOT-HOLE BORER (Xylobiops basilaris Say)

Mississippi

R. W. Harned and assistants (September): Abundant in nursery pecan trees killed by cold last winter at Merrill.

PECAN WEEVIL (Balaninus caryae Horn)

Alabama

J. M. Robinson (September 19): The pecan weevil is very abundant in large pecan groves at Camp Hill.

WALNUT

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Georgia

H. S. Adair (September 25): The walnut caterpillar has been observed doing some damage to pecan trees in this locality (Albany) during the past few weeks.

Florida

J. R. Watson (September 24): The walnut defoliator continues to be abundant.

Mississippi

R. W. Harned and assistants (September): Several colonies of the walnut caterpillar were observed in one pecan orchard. The larvae were in their second instar. Several clusters of eggs were examined and it was found that the hatch was 100 per cent. A heavier infestation may be anticipated next year, since the parasitism seems to be low. The walnut caterpillar has been practically absent from the pecan orchards in southern Mississippi ever since the heavy infestation in 1927. That year, it will be remembered, we had three distinct generations. The egg parasitism of the third generation averaged 92.3 per cent. Since that time only an occasional colony has been found.

Alabama

J. M. Robinson (September 19): The walnut datana is active and moderately abundant on pecans at Auburn and Camp Hill.

AN APHID (Callipterus juglandis Frisch)

Oregon

B. G. Thompson (July): European walnut aphids are showing up more numerous than in June but not so numerous as last year.

HAZELNUT

A LOOPER (Lepidoptera)

Oregon

D. C. Mote (August): A looper very much resembling

Ellopia somnaria Hbst. has been taken in several localities in western Oregon in considerable numbers on cultivated filberts and wild hazelnuts, as reported by B. G. Thompson.

CITRUS

ORANGE THRIPS (Scirtothrips citri Moulton)

- Arizona E. A. McGregor (September 1): In the grapefruit districts of Arizona (Yuma, Phoenix, Mesa) injury by the citrus thrips has been very severe. A considerable percentage both of grapefruit and navel oranges in the above localities have been materially lowered in grade this year, as the result of the work of the thrips.
- Arizona C. D. Lebert (September 25): Considerable injury in the nature of fruit scar is showing up. In many cases the citrus fruit has been scarred severely.
- California E. A. McGregor (September 1): With the exception of a few points in certain hot interior districts, the occurrence of the citrus thrips has been unusually light this season in southern California.

CLOUDY-WINGED WHITEFLY (Dialeurodes citrifolii Morg.)

- Florida G. B. Merrill (September 27): The cloudy-winged whitefly is moderately abundant at Citra, Gainesville, Earlton, and south. It is only during the past few years that this species of whitefly has been found so far north in Florida.

SOFT SCALE (Coccus hesperidum L.)

- Mississippi R. W. Harned and assistants (September): This scale is very abundant on satsuma oranges at Agricola and on ornamental plants at Corinth. It is generally scarce in the Gulfport-Ocean Springs district.

PURPLE MITE (Paratetranychus citri McG.)

- California E. A. McGregor (September 1): The examination of 37 orange groves in five counties of southern California has brought to light the fact that the citrus mite during the month of August was reduced by natural causes to the lightest infestation of which we have ever been aware. Only 7 mites were obtained from 740 orange twigs (units) in these 37 scattered groves.

TRUCK - CROP INSECTS

VEGETABLE WEEVIL (Listroderes obliquus Gyll.)

Mississippi

R. P. Colmer (September 20): Reports of moderate injury to turnips around Pascagoula and Moss Point have been received.

PARSLEY STALK WEEVIL (Listronotus latiusculus Boh.)

Illinois

J. H. Bigger (September 15): The carrot weevil is abundant in certain districts in western Illinois where it is increasing in importance. It destroyed nearly the entire crop of early carrots.

BLISTER BEETLE (Meloidae)

Maryland

E. M. Cory (August 16): Epicauta marginata Fab. and E. vittata Fab. are abundant on both the Eastern and Western Shores on potatoes, tomatoes, Swiss chard, beets, and various flowers.

Ohio

E. W. Mendenhall (September 3): E. pennsylvanica DeG. is very destructive to dahlia and gladiolus flowers at Sidney.

Indiana

J. J. Davis (September 22): E. pennsylvanica DeG. damaged potatoes at Lafayette according to a report received August 29.

Iowa

H. E. Jaques (September 25): The black blister beetle (E. pennsylvanica DeG.) is very abundant in Henry County on asters and garden plants.

STRIPED FLEA BEETLE (Phyllotreta vittata Fab.)

North Carolina

W. A. Thomas (September 11): There has been considerable complaint in this section (Chadbourn) recently of serious flea beetle injury to young turnips. Observations within the past few days show that this insect is causing a great amount of damage to practically all cruciferous plants. The plants are most frequently destroyed just after coming up.

BANDED CUCUMBER BEETLE (Diabrotica balteata Lec.)

California

J. C. Elmore (September 26): This insect was first discovered in California in 1926 or 1927 near San Diego. It has gradually spread north but has not become numerous until this year. Near San Juan Capistrano it became very numerous by September 1 and was doing very noticeable damage to eggplant and peppers. Cucumbers having been through harvest and fields plowed under at this time.

POTATO AND TOMATO

POTATO LEAFHOPPER (Empoasca fabae Harr.)

- Vermont H. L. Bailey (September 23): The potato leafhopper is moderately abundant throughout the State but is more plentiful in the southern and western sections.
- South Carolina W. J. Reid, Jr. (September 24): The potato leafhopper is very abundant on fall potato plantings and fall snap beans in the Charleston area. The insect is present in greater numbers than observed in this section in any previous season. A 5-acre field on one farm is suffering severely from an attack. Frequent rains have rendered control measures ineffective. The adult stage of the insect greatly predominates in numbers in the fields at this date. Temperatures have been too high for rapid potato growth. The insect is much less abundant on the beans than on the potato plantings. Damage to the bean plants does not at the present appear to be serious.
- Ohio T. H. Parks (September 27): The potato leafhopper is more abundant than one year ago, but not so numerous as it was during the serious epidemic between 1919 and 1923.
- Indiana J. J. Davis (September 22): The potato leafhopper was responsible for serious hopperburn of potatoes at Elkhart and Lafayette. Injury was especially noticeable early in September.
- Minnesota A. G. Ruggles and assistants (September): The potato leafhopper is reported as very abundant in Filmore County and doing much damage in Carlton County. It appears to be moderately abundant over the remainder of the State.
- Iowa H. E. Jaques (September 25): The potato leafhopper is infesting late potatoes in scattered localities.

A STINK BUG (Chlorochroa sayi Stal.)

- Nebraska M. H. Swenk (August 15 - September 1): During the third week in August Professor D. B. Whelan found this penatomid injuring potatoes in Kimball County, this being the first record for the species in the State.

TOBACCO WORM (Protoparce quinquemaculata Haw.)

- Illinois W. P. Flint (September 15): This insect is much more abundant than usual in this section (Champaign County).

TOMATO WORM (Protoparce sexta Johan.)

- Alabama J. M. Robinson (September 19): The sphingid larvae (southern tobacco worm) are abundant on tomatoes and tomato foliage in Auburn and Lee Counties.

POTATO TUBER WORM (Phthorimaea operculella Zell.)

- North Carolina C. H. Brannon (September 25): Potatoes sent in from Craven County heavily infested.
- Indiana J. J. Davis (September 22): Infested potatoes were received August 26, our correspondent advising us they were purchased at Fort Wayne, having been shipped there from some point in Virginia. "We have a customer in our city who purchased homegrown potatoes near New Haven, Ind., that had the same infestation, therefore we believe that you will find this same trouble right in our home State" the dealer said.

POTATO FLEA BEETLE (Epitrix cucumeris Harr.)

- Iowa H. E. Jaques (September 25): The potato flea beetle is very abundant in Crawford County.

RING-LEGGED EARWIG (Anisolabis annulipes Lucas)

- Mississippi H. Dietrich (September 20): Earwigs are very abundant in stored Irish potatoes and eating out the tubers at Lucedale.

CABBAGE

IMPORTED CABBAGE WORM (Pieris rapae L.)

- Illinois J. H. Bigger (September 15): The imported cabbage worm is very abundant, and late cabbage being destroyed wholesale.
- Minnesota A. G. Ruggles and assistants (September): The imported cabbage worm is reported as very abundant in Blue Earth, Winona, Rice, Mower, and Lyon Counties and in parts of Carleton County. Over the remainder of the State it is relatively unimportant.
- Iowa H. E. Jaques (September 25): The imported cabbage worm is very abundant in northern and western Iowa.
- Missouri L. Haseman (September 24): The imported cabbage worm has been only moderately abundant since August.
- Utah G. F. Knowlton (September 19): Larvae and adults are abundant at Lehi and Provo.

SOUTHERN CABBAGE WORM (Pieris protodice B. & L.)

- Alabama J. M. Robinson (September 19): The southern cabbage worm is abundant.
- Mississippi R. W. Harned (September 22): Larvae were found seriously injuring mustard plants at Plantersville, on September 12.

CABBAGE WEBWORM (Hellula undalis Fab.)

North Carolina and South Carolina W. A. Thomas (September 10): A very serious outbreak has occurred in many districts of the two Carolinas during the past three weeks. Most of the fall turnips in many localities have been completely destroyed. Some local growers are now planting for the eighth time because of this insect.

Alabama J. M. Robinson (September 19): The turnip webworm is moderately abundant at Auburn, Tuscaloosa, Crossville, and Andalusia; very active on turnips; larvae present in all stages.

Mississippi H. Dietrich (September 20): The imported cabbage webworm is showing up in considerable numbers on fall plantings of turnips.

CABBAGE LOOPER (Autographa brassicae Riley)

Virginia G. E. Gould (September 24): Cabbage loopers are doing considerable damage to many of the fall crops. All of the cruciferous crops, such as Savoy cabbage, kale, broccoli, rape, collards, and rutabagas, show severe injury due to this insect as well as the diamond-back moth Plutella maculipennis Curt. and the fall armyworm Laphygma frugiperda S. & A. A 7-acre field of garden peas was practically destroyed by the loopers and fall armyworms. Damage is also reported on snap beans.

Alabama J. M. Robinson (September 19): The cabbage looper is abundant on turnips and cabbage at Auburn.

Mississippi R. W. Harned (September 22): Several complaints in regard to serious injury to turnips, collards, and closely related plants have been received at this office during the past week.

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

Michigan R. H. Pettit (September): False cabbage aphids are very abundant in general on cabbage and on radish grown for seed in Antrim and Charlevoix Counties.

HARLEQUIN BUG (Murgantia histrionica Hahn)

South Carolina Alfred Lutken (September 19): The harlequin bug is very abundant in general.

Missouri L. Haseman (September 24): Late cabbage and turnips in places in southern Missouri have been seriously damaged during the month.

Mississippi R. W. Harned (September 22): Harlequin cabbage bugs were reported as abundant on collards at Columbus, on September 4.

R. W. Harned and assistants (September): Reported as very abundant at Corinth, McComb, and Meridian, and at several points in George, Greene, and Perry Counties.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

- Connecticut W. E. Britton (September 24): This insect is now distributed throughout the State. In certain fields considerable injury has been done.
- Maryland E. N. Cory (August 16): The Mexican bean beetle is scarce.
- Virginia G. E. Gould (September 24): The Mexican bean beetle is not so abundant as last year at this time. During September feeding of the beetles and larvae has become more noticeable, but very little damage has been reported.
- Virginia and West Virginia Oliver I. Snapp (September 1): ^{Va.}The Mexican bean beetle is much less abundant at Winchester, and Yellow Springs, W. Va., than it was in 1928 and in 1929. Undoubtedly the dry season has contributed to the reduced infestation.
- West Virginia L. M. Peairs (September 20): The Mexican bean beetle is scarce to moderately abundant in localities reporting it but is increasing.
- Mississippi R. W. Harned and assistants (September): The Mexican bean beetle is unusually scarce throughout the State this year.
- Georgia C. H. Alden (September 20): The Mexican bean beetle is scarce. Few on late beans.
- Alabama J. M. Robinson (September 19): The Mexican bean beetle is scarce at Auburn.
- Illinois S. C. Chandler (September 15): A survey of the green-bean trucking area in Union and Pulaski Counties has failed to show the presence of any Mexican bean beetles.
- Michigan R. H. Pettit (September): The Mexican bean beetle is scarce in the southeastern part of the State.
- Nebraska M. H. Swenk (August 15-September 1): Survey work done by Prof. Don B. Whelan during the latter half of August shows bean fields infested not only south of Lyman and south and east of Morrill, but also north of Morrill and in the vicinity of Gering. This latter infestation is farther east than any previously reported in the State.

Colorado

C. P. Gillette (September 19): The Mexican bean beetle is moderately abundant in general.

A BEETLE (Anthicus californicus Laf.)

Ohio

T. H. Parks (September 27): This beetle was collected early in August in Huron County, where approximately 10 per cent of the stalks of navy beans was partially severed about 1 inch above the ground. The field was visited September 25 and at that time the beetles had disappeared, but evidence of their work remained. The county agent and owner could assign no other reason for this injury and while they were not observed in the act of feeding, the beetles were invariably taken in numbers in the soil at the base of the damaged plants.

CUCUMBERS

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

West Virginia

L. M. Peairs (September 20): Injuring blossoms of squashes and cucumbers quite seriously in small patches.

Florida

J. R. Watson (September 24): Very injurious to beans, mustard, and other plants.

Ohio

E. W. Mendenhall (September 3): Beetles are very destructive on cucumber vines and dahlia flowers.

Missouri

L. Haseman (September 24): I have never seen Diabrotica 12-punctata so abundant.

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

West Virginia

L. M. Peairs (September 20): Very abundant in Monongalia County.

Ohio

T. H. Parks (September 27): This insect was much more abundant than usual this year in both cucumber and melon plants. The Weller Canning Company, located at Oak Harbor, distributed 27 tons of calcium arsenate and gypsum mixture among their pickle growers with excellent results against the beetle. Similar results were obtained by the Crompton Canning Company at Celina.

Illinois

J. H. Bigger (September 15): Very abundant; large numbers of adults preparing to hibernate.

Iowa

H. E. Jaques (September 25): Moderately abundant in pickle and melon patches in southeastern and northeastern counties.

Missouri

L. Haseman (September 24): Very abundant. I have never seen them so abundant.

WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

Oregon

D. C. Mote (August): B. G. Thompson reports that this insect is not so serious as it has been in past years. In some sections a considerable number are found parasitized by a dipterous parasite.

SQUASH

SQUASH BUG (Anasa tristis DeG.)

Missouri

L. Haseman (September 24): The squash bug has been very abundant in melon, squash, and pumpkin fields in central Missouri. On September 20 the majority of the bugs were in the late nymphal stage with many adults and comparatively few of the younger nymphs.

Utah

G. F. Knowlton (September 21): Squash bugs have caused considerable injury to squash plants in northern Utah during the past summer.

PICKLE WORM (Diaphania nitidalis Stoll)

West Virginia

L. M. Peairs (September 20): The pickle worm is damaging summer squash in Monongalia County.

South Carolina

W. J. Reid, Jr. (September 25): The pickle worm has appeared in large numbers on fall squash plantings. The blossoms and young fruit are being attacked. A 12-acre field on one farm shows an infestation of 75 per cent at present. Frequent rains have made attempts at control ineffective.

TURNIP

FALSE CHINCH BUG (Nysius ericae Schill.)

North Carolina

C. H. Brannon (September 23): The false chinch bug is causing damage to turnips in Moore and Wilson Counties.

South Carolina

P. K. Harrison (September 18): The false chinch bug is attacking 150 acres of turnip, two 4-acre fields and one 1-acre field severely at Fairfax.

BEETS

BEET LEAFHOPPER (Eutettix tenellus Baker)

Utah

G. F. Knowlton (September 21): The beet leafhopper is abundant in northern Utah, and considerable damage is resulting

to the sugar-beet crop in most beet-growing areas. The damage is not uniform, however, as some acres are suffering only moderate injury, while others are quite seriously affected.

MUSHROOM

SPRINGTAILS (Collembola)

Pennsylvania C. A. Thomas (September 22): Springtails (Achorutes armatum Nic.) and (Lepidocyrtus cyaneus Tullb.) have caused considerable injury to growing spawn in mushroom houses in Chester County this fall.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana W. E. Hinds (August 29): The sugarcane borer is unusually scarce. No field has been found with more than 10 per cent of stalks now showing borer burrows. Conditions of general infestation will average only about 2 per cent of stalks bored in fields examined August 25 to 28. Borer eggs are very difficult to find and nearly all ^{found} were parasitized by Trichogramma.

FOREST AND SHADE-TREE INSECTS

A CICADA (Tibicen davisii Sm. & Grsb.)

A correction: The nymphs attacking Asparagus plumosus at Jupiter, Fla., were incorrectly associated with the adults of Diceroprocta viridifascia Walk. (Insect Pest Survey Bulletin, Vol. 10, p. 309). Adults of Tibicen davisii emerged in numbers during early September. Nymphs and nymphal shells were determined as this genus by W. T. Davis.

Florida J. R. Watson (September 24): The females of Tibicen davisii have been emerging in large numbers in the "ferneries" in Jupiter, and are depositing eggs in the timbers and laths of the "shade."

FALL WEBWORM (Hyphantria cunea Drury)

Vermont H. L. Bailey (September 23): The fall webworm was generally abundant throughout the State.

Connecticut M. P. Zappe (September 24): Nests are very abundant in the eastern part of the State, much more abundant than in the central or western parts of the State.

- Rhode Island A. E. Stene (September 18): The fall webworm is very abundant along the roadsides.
- Delaware L. A. Stearns (September 15): In New Castle County, during late August and early September, the fall webworm was very abundant on practically all shrubs which they commonly infest.
- Maryland E. N. Cory (August 16): Fall webworms are extremely abundant in Baltimore, Harford, and Cecil Counties at present, feeding on wild cherry, walnut, persimmon, and sumac.
- Pennsylvania C. A. Thomas (September 22): Fall webworms have been very common in Chester County during August and September, and their webs are to be seen everywhere on wild cherry, walnut, pear, sycamore, apple, and numerous other trees.
- South Carolina P. K. Harrison (September 18): The fall webworm is attacking foliage of persimmon and pecan, at Fairfax.
- Florida J. R. Watson (September 24): The fall webworm continues to be abundant. The infestation in northern Florida is the heaviest I have ever observed.
- Alabama J. M. Robinson (September 19): The fall webworm is moderately abundant on various shade and forest trees.

BAGWORMS (Thyridopteryx ephemeraeformis Haw.)

- Maryland E. N. Cory (August 16): Bagworms are locally abundant.
- Ohio E. W. Mendenhall (September 26): There has been a severe outbreak of bagworms on apple tree stock in a nursery near Lancaster (Fairfield County). The bagworm was quite bad last year in the same nursery.
- Alabama J. M. Robinson (September 19): The bagworm is abundant on arborvitae at Birmingham.

GREEN-STRIPED MAPLE WORM (Anisota rubicunda Fab.)

SADDLED PROMINENT (Heterocampa guttivitta Walk.)

- Vermont H. L. Bailey (September 23): Pupae of the green striped maple worm were found in leaf mold in defoliated maple areas with larger number of pupae of Heterocampa guttivitta. Areas stripped by these insects were scattered throughout the southern part of the State.
- Connecticut W. E. Britton (September 23): A large woodland area of maple, oak, beech, and birch in Norfolk and Canaan has been partially defoliated by Heterocampa guttivitta.

SATIN MOTH (Stilpnotia salicis L.)

Vermont

H. L. Bailey (September 23): The satin moth was found as far north as Bradford in the Connecticut River Valley. No complete defoliation caused by the larvae was noted, however.

BEECH

A SKELETONIZER (Psilocorsis faginella Cham.)

Maine

H. B. Peirson (September 25): A beech skeletonizer, possibly Psilocorsis faginella, is numerous from Cape Britton through the Eastern Provinces and Maine to the New Hampshire border. Areas have been reported where every leaf on every beech tree is infested.

BIRCH

BIRCH SKELETONIZER (Bucculatrix canadensisella Chamb.)

Maine

H. B. Peirson (September 20): A heavy outbreak is occurring throughout northern Maine and it is reported from the Eastern Provinces.

Michigan

R. H. Pettit (September): The birch leaf skeletonizer is reported from the east coast, lower peninsula, and upper peninsula.

BIRCH LEAF-MINING SAWFLY (Phyllotoma nemorata Fallen)

Maine

H. B. Peirson (September 25): A general outbreak which started three years ago appears heaviest now. Parasitism is negligible.

A SAWFLY (Hylotoma pectoralis Leach)

Maine

H. B. Peirson (September 27): This insect has been found defoliating birch in many sections of Maine.

BOXELDER

BOXELDER BUG (Leptocoris trivittatus Say)

Illinois

W. P. Flint (September 15): About the usual number of reports of invasions of houses by these insects have been received.

North Dakota J. A. Munro (September 19): Boxelder bugs have been recently noticed as rather numerous in Fargo.

Utah G. F. Knowlton (September 24): Boxelder bugs are proving to be a pest of houses at this season, and many complaints are being received.

CATALPA

A LILYBUG (Pseudococcus comstocki Kuw.)

Connecticut W. E. Britton (September 23): Catalpa trees are severely infested in sections of the city of New Haven between Dixwell Avenue and Goffe Street.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schrank)

Connecticut W. E. Britton (September 23): Unsprayed elm trees are brown in many portions of the State. Condition aggravated by drought.

North Carolina Z. P. Metcalf (September 16): The leaf beetle is found to be abundant at Raleigh. It has been more abundant in Raleigh this past season than has been noted in the last 15 or 16 years..

OAK

OAK SPANWORM (Ellopia somniaria Hist.)

Oregon D. C. Mote (August): Most extensive infestation of recent years of the oak tree looper. Practically 100 per cent of oaks in Yamhill and Polk Counties have been completely defoliated. Caterpillars going into pupal stage September 5. Reported by W. J. Chamberlin.

PINE

A PINE SAWFLY (Neodiprion sp.)

Florida J. R. Watson (September 24): A pine sawfly/has been sent in from Perry where it was defoliating southern longleaf pine trees. (Neodiprion sp.)

ABBOT'S SAWFLY (Diprion abbotii Leach)

Vermont H. L. Bailey (September 23): Abbot's sawfly is reported as damaging a white pine plantation at Barton.

Ohio

E. W. Mendenhall (September 26): There has been an outbreak of Abbot's pine sawfly at Sidney (Shelby County), attacking white pines.

PINE BARK APHID (Chermes pinicorticis Fitch)

Minnesota

H. O. Putnam (September 8): The woolly aphid is very abundant on white pine in Fillmore County.

SPRUCE

SPRUCE SAWFLY (Neodiprion abietis Harr.)

Maine

H. B. Peirson (September 10): The fir sawfly is reported in Georgetown. Adults are laying eggs in needles of red spruce and fir.

SPRUCE NEEDLE MINER (Taniva albolineana Kearf.)

Ohio

E. W. Mendenhall (August 29): The spruce needle miner is generally infesting the spruce evergreens in central and southern Ohio. (September 5): I find spruce needle miner on Koster's blue spruce in one of the nurseries at Dayton.

A LEAF MINER (Epinotia nanana Treit.)

Maine

H. B. Peirson (September 25): The spruce webworm is not so bad as in previous years.

INSECTS AFFECTING GREENHOUSE AND
ORNAMENTAL PLANTS AND LAWNS

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Georgia

Oliver I. Snapp (September 8): The adults are very abundant now. Considerable damage has been done to privet and other plantings around houses, at Fort Valley.

Mississippi

R. W. Harned and assistants (September): This insect is very abundant on crepe myrtle at Lucedale, and on privet at Natchez.

FLOWER THRIPS (Frankliniella tritici Fitch)

Ohio

E. W. Mendenhall (September 25): Thrips infestation on gladioli is quite bad at Painesville, Lake County.

ARBORVITAE

ARBORVITAE LEAF MINER (Argyresthia thuiella Pack.)

Maine

H. B. Peirson (September 20): The arborvitae leaf miner, Recurvaria thujaella, is very prevalent in northern Maine.

BAY

LAUREL PSYLLID (Trioza alacris Flor.)

Virginia

G. E. Gould (September 24): The laurel psyllid has been reported from bay trees in Norfolk. The damage of this insect is from the unsightly appearance of the infested tree rather than any injury to the foliage.

CACTUS

COCHINEAL INSECT (Dactylopius tomentosus Lamarck)

Arizona

C. D. Lebert (September 25): Severe infestations were found on cholla cactus in two Phoenix cactus gardens. A small lady beetle was feeding on the scale at both places.

CANNA

LARGER CANNA LEAF ROLLER (Calpodes ethlius Cramer)

Mississippi

H. Dietrich (September 20): The larger canna leaf roller is very abundant on cannas at Lucedale.

R. P. Colmer (September 20): The larger canna leaf roller is very abundant in the vicinity of Pascagoula and Moss Point.

CAMELLIA

BLACK CITRUS APHID (Toxoptera aurantiae Koch)

Mississippi

H. Dietrich (September 20): Aphids (Toxoptera aurantiae) are abundant on Camellia japonica in a nursery at Lucedale.

CHRYSANTHEMUM

SOD WEBWORMS (Crambus spp.)

Maryland

E. N. Cory (August 16): Sod webworms injured chrysanthemums in one greenhouse in Baltimore County in mid-July. These apparently came in with sod used in preparing the soil that went into the bed.

CHRYSANTHEMUM LACEBUG (Corythucha marmorata Uhl.)

Mississippi

R. W. Harned (September 22): Chrysanthemum leaves infested with Corythucha marmorata were received from Alligator on September 4, and from Natchez on September 8.

HAWTHORN

A LACEBUG (Corythucha cydoniae Fitch)

Virginia

G. E. Gould (September 24): This lacebug has done considerable damage to an ornamental Pyracantha or English hawthorn in Norfolk.

HIBISCUS

LETTUCE BUG (Corizus hyalinus Fab.)

Mississippi

R. W. Harned (September 22): Specimens were received on August 23 from Perkinston where they were reported as abundant on the seed pods of Hibiscus.

IVY

IVY SCALE (Aspidiotus hederæ Vallot)

Virginia

G. E. Gould (September 24): The ivy scale is abundant in Norfolk on English Ivy.

ROSE

ROSE STEM GIRDLER (Agrilus viridis L.)

Connecticut

M. P. Zappe (September 24): Borers attacking Rosa rugosa, R. multiflora, and R. hugonis; in only 1 case were they attacking tea roses, which are usually free from infestation. Reported over the entire State more abundantly than ever before observed in Connecticut.

I N S E C T S A T T A C K I N G M A N A N D

D O M E S T I C A N I M A L S

MAN

MOSQUITOES (Culex spp.).

Maryland

J. A. Hyslop (September 15): In the southeastern part of Montgomery County mosquitoes have been more troublesome than any time in the past 10 years.

E. N. Cory (September 22): Mosquitoes are very abnormally abundant, especially Culex spp.

Missouri

L. Haseman (September 24): A small species of Culex has been unusually abundant and annoying through August and September. In the vicinity of Columbia it has been breeding abundantly in the streams and the adults have migrated into the city in swarms. The small size of the species has made it possible for it to pass through ordinary screens, and it is therefore particularly annoying at night.

DOG FLEAS (Ctenocephalus canis Curt.)

CAT FLEAS (Ctenocephalus felis Bouche)

General

F. C. Bishopp (September 28): About the usual number of reports of house infestations of fleas have been received this season, but the trouble has continued later than ordinarily, probably owing to the warm weather. These reports emanate mainly from the North Atlantic States, with many from the vicinity of Washington, D. C.

BLACK WIDOW (Latrodectus mactans Fab.)

Mississippi

R. P. Colmer (September 20): A child at Escatawpa was made quite sick from the bite of the hourglass spider.

CATTLE

STABLE FLY (Stomoxys calcitrans L.)

General

F. C. Bishopp (September 2 - 12): Stable flies were observed to be a severe annoyance to all classes of livestock in the following localities: Tremonton, Ogden, Salt Lake City, Utah; Cheyenne Wells, Colorado; Hays, Ellsworth, Junction City, and Manhattan, Kans. In eastern Colorado and western Kansas the stock were seen to be bunched fighting stable and horn flies from early morning to sundown, as a result of which there was reduced flesh and a sharp decline in milk flow.

NOSE BOTFLY (Gastrophilus haemorrhoidalis L.)

General

F. C. Bishopp (August and September): The nose fly in recent years has extended its range westward across Montana, northern Idaho, and western Washington. It has also become well established throughout most of Wyoming, in northern Colorado, and in northeastern Utah.

POULTRYCHICKEN MITE (Dermanyssus gallinae Redi)

Maryland

R. D. Wagner (September): Since September 1 there has been a sharp decline in the number of mites in chicken houses in Prince Georges County. It is now difficult to find any infested premises.

WESTERN HEN FLEA (Ceratophyllus niger Fox)

Oregon

F. C. Bishopp (August 30): The hen flea is causing much annoyance to poultry in this section, both on commercial and farm flocks. Apparently egg production and the condition of the fowls are lowered, and the fleas are also annoying to the people who attend to the poultry.

HOUSEHOLD AND STORED -

PRODUCT INSECTS

ANTS (Formicidae)

Mississippi

M. R. Smith (September 22): Mr. E. E. Byrd collected specimens of what is believed to be Tetramorium striatidens Emery, from the brick wall of a store in the business section of West Point. This is the second time that the species has been recorded from the United States. It was first taken in this country at New Orleans by E. R. Barber in 1913. (Wheeler, Jour. Econ. Ent., Vol. 1, pp. 566-570, 1916.) According to Wheeler the ant is becoming widely distributed over all parts of the world. G. W. Haug states that Tetramorium guineense Fab. is common in the business section of Pascagoula. It was observed crawling over vegetables in many stores there. Recently we received specimens from Neely. Mr. Haug states that the crazy ant (Paratrechina longicornis Latr.) is unusually common in the business section of Gulfport. According to him the ants can be seen infesting fruits and vegetables in the stores. They do not seem to infest meats especially. Recently J. P. Kislanko has taken this ant at Wiggins. This is the first time that the species has been recorded from any of our inland towns. A native species, the

lion ant (Dorymyrmex pyramicus Roger) has been complained of a number of times as infesting houses. The ants are also of some benefit because they prey on fall webworms, corn ear worms, grass worms, etc.

A WOOD-BORING BEETLE (Platypus compositus Say)

Mississippi H. Dietrich (September 20): Platypus compositus is very abundant in hardwood logs in Pascagoula Swamp, George County. These logs were cut in the spring, drawn to the bank of Big Creek, but because of low water were never floated away.

LARDER BEETLE (Dermestes lardarius L.)

Indiana J. J. Davis (September 22): The larder beetle was reported very destructive to home-cured hams at Huntington, September 13.

Missouri L. Haseman (September 24): Larder beetles have been reported as very destructive on cured meats recently.

DRIED FRUIT BEETLE (Carpophilus hemipterus L.)

Arizona C. D. Lebert (September 25): Numerous on and in some California peaches at Phoenix store. Many peaches were returned and were unsalable.

